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Drawings Objection

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, in Claims 3 and 4, the elements and means such as "data receiving means", "means for determining within the buffered" and "means for buffering the second data stream" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Regarding Claims 3 and 4, elements "means for receiving data", "first buffer", "means for determining" and "means for buffering the second data stream" are means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and

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clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 1, line 3, the phrase "labels marking entry points for seamlessly switching to data from another data stream" is vague because it is not clear how the feature "labels marking entry points" can switch data streams. That is, an operation of switching data stream should be performed by data

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transmission means (hardware) instead of the claimed "data marking entry point". Furthermore, it is not clear what is meant by "switching to data from another data stream" because no matter there is an switching operation or not, all the claimed streams are in form of data.

Regarding to Claim 1, lines 10 and 11, the phrase "a minimum amount of buffered data" is indefinite. As a consequence, the following phrase "the minimum amount being the maximum amount of data" is also indefinite as what is the data capacity of minimum or maximum buffer amount is unknown.

Regarding to Claim 1, last two lines, the phrase "buffered in at least logically the same buffer" is not clear as a logical buffer is not a physical buffer.

Regarding independent Claim 3, line 3, the phrase "may contain labels marking entry points for seamlessly switching to data from another stream" is vague. First, the phrase "may contain labels marking entry points" is an indefinite term. And second, it is not clear how the feature "labels marking entry points" can switch data streams.

Regarding to independent Claim 3, line 13, the phrase "a minimum amount of buffered data" is indefinite. As a consequence, the following phrase "the minimum amount being the

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maximum amount of data" is also indefinite as the capacity of minimum or maximum buffer amount is unknown.

The claims not specifically mentioned above are indefinite based upon their dependence on an indefinite claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

7. Claims 1-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nakamura et al. (U.S. Patent 5,745,645).

8. Nakamura teaches a method for buffering data streams having all of the steps as recited in claims 1, 2 and 5-11. For example, Nakamura teaches the following:

Regarding Claim 1, the method for buffering data streams of same data type (Fig. 2; video stream buffer 400 and audio stream buffer 800 are used), Wherein a first read data stream (Fig. 2; such as video stream) contains labels marking entry points (Fig. 1; VTS #0) for seamlessly switching to data from another stream

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of same data type (Figs. 23 and 24); the first read data stream including the labels is buffered in a buffer (Fig. 50; column 52; lines 10-18); a request for seamlessly switching to a second data stream of same data type is received (Figs. 23 and 24; column 34, lines 16-28), the second data stream (Fig. 23; different angles) being contained in a different file (MA1, MA2, MA31 different angle scenes) than the first data stream (Fig. 23); an entry point (switching angle point) for seamless switching to the second data stream (different angles) is determined within the buffered (encoded/decoded buffer) first data stream by selecting the first label that is buffered after a minimum amount of buffered data (Fig. 23; encoded/decoded stream is the minimum stream ready to write/read), the minimum amount being the maximum amount (requested amount) of data that may be read out of the buffer during a specified time (Fig. 23; buffer stored seamlessly streams of data), wherein the specified time is the time between receiving the request and buffering the second data stream (Fig. 23; switching angle request); and the second data stream (different angles) is read and buffered in at least logically the same buffer (video buffer), the buffering starting from the first label (angle scenes are loaded to the buffer).

Regarding Claim 2, pointers containing the buffer address

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of the buffered entry points (angles scenes) are buffered separately, and are used for determining said first label (Fig. 23; inherent feature where angle scenes and addresses are grouped differently).

Regarding Claim 5, the data type is video 300, audio 700 or subtitle data 500 (Fig. 2).

Regarding Claim 6, the buffered data may be read, without interruptions and without buffer underrun (Fig. 2; large size buffer), after an initial filling procedure, the initial filling procedure comprising filling the audio and subtitle buffers partly before filling the video buffer completely (Fig. 2; buffers 400, 600 and 800 are filled accordingly to the encoder output).

Regarding Claim 7, the first and the second data stream are read from the same storage medium M (Fig. 3).

Regarding Claim 8, the storage medium is a removable optical disc (Fig. 3; DVD).

Regarding Claim 9, the data stream is an MPEG video stream, and an entry point is a group-of-pictures boundary (Fig. 3; column 27, lines 41-43).

Regarding Claim 10, the method for video angle switching (Fig. 23).

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Regarding Claim 11, a label (MA2) may refer to a plurality of specific second data streams of same data type (angle scene label), wherein an arbitrary method (user request) is used to determine the second data stream to be read or received (Fig. 23).

9. Apparatus claims 3 and 4 are drawn to the apparatus corresponding to the method of using same as claimed in claims 1 and 2. Therefore apparatus claims 3 and 4 correspond to method claims 1 and 2, and are rejected for the same reason of anticipation as used above.

Related Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ko et al. (6,185,369) is pertinent because Ko teaches a video stream having different viewing angles.

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11. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

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